

# MUCOEPIDERMOID CARCINOMA ON THE VERMILION BORDER OF THE UPPER LIP: A CASE REPORT AND LITERATURE REVIEW

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Mucoepidermoid carcinoma occurring in the upper lip is extremely rare. A review of the English literature on mucoepidermoid carcinoma found only four reported cases in the lower lip, and none on the vermilion border of the upper lip. We present a 57-year-old patient who had an asymptomatic lesion on the middle upper lip for 30 years. It had grown progressively and had ulcerated over 1 month ago; the tumor was treated by M-excision. After 17 months of post-therapy, the patient had no local recurrence or distant metastasis. Mucoepidermoid carcinoma is a rare malignancy on the vermilion border of the upper lip with no reported cases to date. The origins of this tumor are not completely understood. Complete resection of the mucoepidermoid carcinoma usually achieves a successful outcome. Although very rare, mucoepidermoid carcinoma should be taken into consideration in the differential diagnosis of any upper lip mass.

**Key Words:** mucoepidermoid carcinoma, upper lip, vermilion border  
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Mucoepidermoid carcinoma is the most common tumor of salivary tissue, but it has been reported in other locations such as the respiratory and digestive tracts [1]. The tumor is rare, accounting for less than 0.5% of all malignancies. Minor salivary gland malignancy is an uncommon form of oral cavity cancer, accounting for about 2–3% of all malignant neoplasms of the upper aerodigestive tract [1]. Most mucoepidermoid carcinomas occur in the head and neck regions, mainly located in the parotids and palate. The literature suggests that mucoepidermoid carcinoma of the upper lip is a rare entity. In 1982, Owens and Calcaterra reported five cases of upper lip mucoepidermoid carcinoma found among 307

cases of lip cancer [2]. In 2001, Ogura et al found two cases of upper lip mucoepidermoid carcinoma [3]. A thorough review of the English literature found no case report of mucoepidermoid carcinoma arising on the vermilion border of the upper lip. We describe a patient in whom mucoepidermoid carcinoma of the salivary gland presented as an asymptomatic mass on the vermilion border of the middle upper lip.

## CASE PRESENTATION

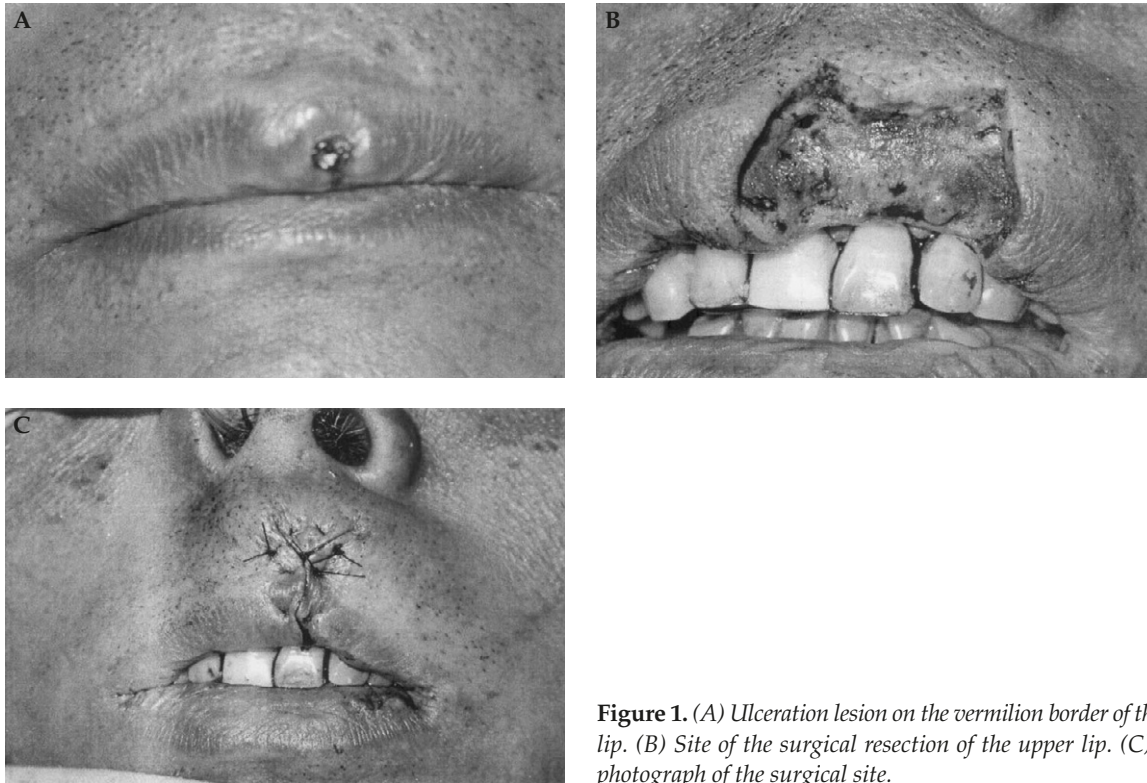
A 57-year-old man, apparently in good health, was referred to our department for evaluation on October 9, 2004. He presented with an asymptomatic lesion on the vermilion border of the middle upper lip. It had grown progressively and had ulcerated over 1 month ago. The patient stated that the lip mass had been present for 30 years. Physical examination found an oval central ulcerated nodule, 1.5 cm in diameter, with a firm consistency and indurate border (Figure 1A). There were

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**Figure 1.** (A) Ulceration lesion on the vermilion border of the middle upper lip. (B) Site of the surgical resection of the upper lip. (C) Postoperative photograph of the surgical site.

no enlarged neck lymph nodes. The clinical diagnosis was basal cell carcinoma (BCC). Hence, he was advised to have the mass excised as soon as possible.

On October 15, 2004, the tumor was treated by M-excision following general anesthesia (Figure 1B and C). The wounds were closed primarily by undermining the adjacent soft tissue. Complete blood count and serum biochemistry profile were within normal limits, and chest radiography was normal. In 17 months of follow-up, there was no evidence of local, regional, or distant metastasis.

On gross examination, the specimen consisted of a firm, hard, and central ulceration tissue mass. The tumor measured  $20 \times 20 \times 10$  mm, and the cut surface was whitish. Histopathologic examination of the surgical specimen showed infiltration into the muscular layer. The tumor was predominantly composed of intermediate and squamous cell nests containing mucin-secreting cells lining cystic spaces. Some nests of tumor cells (about 20%) showed microcystic degeneration. The definitive diagnosis was low-grade mucoepidermoid carcinoma (Figure 2). The resection margins of mucosa, skin, and underlying stroma were free.

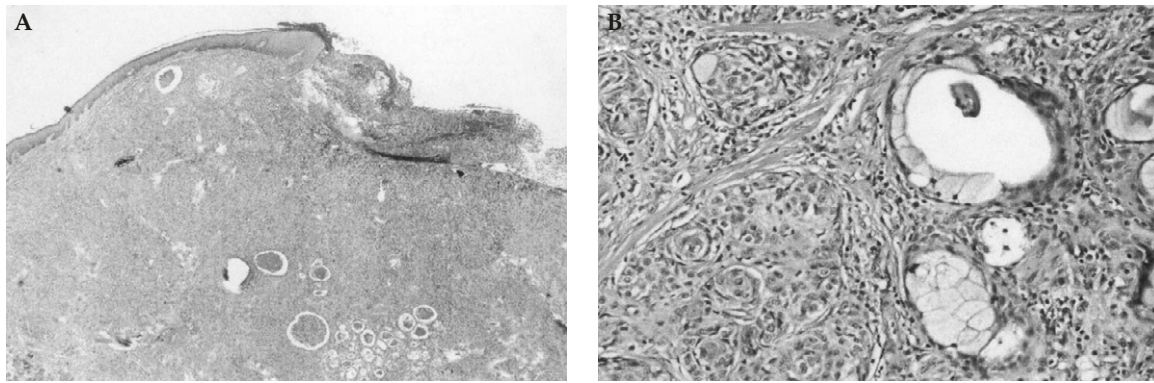
The patient was treated with M-excision and underwent no adjunctive radiotherapy. The patient's postoperative course was uneventful. The metastatic

work-up was negative. After 14 months of follow-up, no clinical recurrence was observed.

## DISCUSSION

The clinical picture of mucoepidermoid carcinoma obviously depends on the site of origin [1]. Most mucoepidermoid carcinomas occur in the head and neck regions, mainly located in the parotids and palate. The occurrence of mucoepidermoid carcinomas on other sites such as skin, airway, breast, pancreas, and thyroid is rare. The signs and symptoms differ from BCC, but arise at the same location on the upper lip [4]. Mucoepidermoid carcinoma may arise from minor salivary glands of the lip. As in this case, mucoepidermoid carcinoma on the vermilion border of the upper lip is a rare clinical entity.

Mucoepidermoid carcinoma is a malignant epithelial tumor that is composed of various proportions of mucous, epidermoid (squamous), intermediate, columnar, and clear cells, and often demonstrates prominent cystic growth [5]. Mucoepidermoid carcinomas can be classified into low-grade, intermediate-grade, and high-grade mucoepidermoid carcinomas [6]. Grading parameters include intracystic component,



**Figure 2.** (A) Small and partially encapsulated on gross examination may have some cystic components (hematoxylin & eosin [H&E], 20×). (B) Mucoepidermoid carcinoma: mucoid cells separated by bands of epidermoid cells, epidermoid components resemble squamous cell carcinoma, mucous cells are clear and plump with small nuclei, nest of neoplastic squamous cells along with cystic spaces (H&E, 200×).

neural invasion, anaplasia, mitosis, and necrosis [7]. Low-grade mucoepidermoid carcinomas are infiltrating tumors with bland mucin secretion and intermediate cells and a well-differentiated squamous component [6–9]. High-grade mucoepidermoid carcinomas are less well-differentiated tumors composed of mucin-secreting, squamous, and intermediate cells. In our case, the histopathologic appearance fits the definition of low-grade mucoepidermoid carcinoma.

It is generally accepted that after wide field surgical excision, routine postoperative irradiation will decrease the local recurrence rate [10,11]. Epker and Henry reported a 100% 5-year survival rate for four patients treated initially with wide local excision [12]. Hence, low-grade mucoepidermoid carcinoma does not appear to recur when treated by aggressive local surgical excision.

In summary, mucoepidermoid carcinoma on the vermilion border of the upper lip is a clinical rarity. Complete surgical excision is usually effective. Although very rare, mucoepidermoid carcinomas should be taken into consideration in the differential diagnosis of an upper lip mass.

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# 上唇之黏液表皮樣細胞癌 — 病例報告

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黏液表皮樣細胞癌發生在上唇是非常罕見，經由醫學文獻分析檢索系統發現，目前為止僅有四個下唇之黏液表皮樣細胞癌病例被報導，而且關於發生在上唇邊緣的病例則更為罕見。本科經歷一位 57 歲男性病患，其上唇中線位置有一無壓痛感的腫瘤，且此腫瘤已經存在 30 年之久，然而最近 1 個月卻發現腫瘤有逐漸變大及潰瘍的情形，於是病人接受切除手術治療。手術治療後該病人持續追蹤觀察 17 個月後，發現於患處並無復發或轉移跡象，目前仍持續門診追蹤。截至目前為止並無報導論述關於發生在上唇邊緣之黏液表皮樣細胞癌，且對於其形成的原因並不是十分的清楚。而以手術完全切除黏液表皮樣細胞癌的治療方式，通常能獲得良好的預後結果。儘管上唇之黏液表皮樣細胞癌非常罕見，但仍建議將其與上唇的腫瘤作一區分鑑別診斷。

**關鍵詞：**黏液表皮樣細胞癌，上唇，唇緣  
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